

Peptide Array, *Bacillus anthracis*, Strain Sterne, PA Protein

Catalog No. NR-527

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Product Description: A 102-peptide array spans the PA protein of the *Bacillus anthracis* strain sterne (GenPept: AAA22637). Peptides are 13- to 20-mers, with 10 or 11 amino acid overlaps.

Lot: 3829001

The following information applies to all.

- Appearance White lyophilized powder
- Mass spectral analysis "Exhibits correct MW"
- Counter Ion Ammonium Bicarbonate (Peptides 2, 8, 39, 45, 46, 48, 61, 62, 79, 80)
 Ammonium Acetate (Peptides 7, 11, 13, 15, 16, 21, 24, 53, 63, 66, 75, 77, 82, 90, 91)
 Trifluoroacetate (all other Peptides)

Peptide-specific information is shown in the two tables below.

Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Purity by HPLC ^a	Peptide Content ^b
1	9/15/2004	18	MKKRKVLIPLMALSTILV	2054.7	97.9%	75.8%
2	10/20/2004	18	PLMALSTILVSSTGNLEV	1845.2	51.2%	89.2%
3	9/27/2004	16	LVSSTGNLEVIQAEVK	1686.9	90.6%	84.5%
4	9/21/2004	16	NLEVIQAEVKQENRLL	1896.2	94.2%	79.6%
5	10/11/2004	20	AEVKQENRLLNESESSSQGL	2218.4	93.9%	81.6%
6	9/20/2004	18	NESESSSQGLLGYFSDL	1996.1	91.3%	86.9%
7	10/7/2004	18	GLLGYFSDLNFQAPMVV	2034.4	90.4%	86.2%
8	10/20/2004	18	DLNFQAPMVVTSSTGDL	1896.1	67.7%	83.7%
9	10/7/2004	17	VVTSSTTGDL SIPSEL	1692.8	91.7%	88.2%
10	9/15/2004	19	GDLSIPSELENIPSENQY	2092.2	94.3%	88.7%
11	9/22/2004	16	LENIPSENQYFQSAIW	1939.1	96.0%	89.1%
12	9/20/2004	18	ENQYFQSAIWSGFIKVKK	2173.5	91.1%	79.5%
13	9/21/2004	17	IWSGFIKVKSDEYTFA	2019.3	98.6%	76.7%
14	9/20/2004	17	VKKSDEYTFATSADNHV	1912.0	92.8%	80.1%
15	9/22/2004	19	TFATSADNHVTMWVDDQEV	2166.3	41.0%	86.8%
16	10/11/2004	19	VTMWVDDQEVINKASNSNK	2178.4	94.1%	79.6%
17	9/22/2004	19	VINKASNSNKIRLEKGRLL	2040.4	99.0%	72.7%
18	9/16/2004	18	NKIRLEKGRLLYQIKIQY	2163.6	91.0%	75.0%
19	9/15/2004	17	GRLLYQIKIQYQRENPTK	2264.6	90.3%	75.1%
20	9/14/2004	18	IQYQRENPTKGLDFKLY	2242.5	95.1%	79.5%

Table 1 (continued)

Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Purity by HPLC ^a	Peptide Content ^b
21	10/4/2004	18	TEKGLDFKLYWTDSQNKK	2201.5	93.6%	77.1%
22	9/27/2004	18	LYWTDSQNKKEVISSDNL	2140.3	92.6%	81.3%
23	9/14/2004	18	KKEVISSDNLQLPELKQK	2097.4	94.9%	78.1%
24	9/15/2004	18	NLQLPELKQKSSNSRKKR	2154.5	97.0%	73.5%
25	9/28/2004	15	KQKSSNSRKKRSTSA	1692.9	91.0%	63.7%
26	9/24/2004	17	NSRKKRSTSAGPTVPDR	1857.1	94.5%	71.7%
27	10/4/2004	15	TSAGPTVPDRDNDGI	1514.6	99.2%	82.6%
28	10/15/2004	16	TVPDRDNDGIPDSLEV	1741.8	93.9%	85.4%
29	9/20/2004	18	NDGIPDSLEVEGYTVDVK	1950.1	90.6%	82.4%
30	9/20/2004	16	EVEGYTVDVKNKRTFL	1898.1	93.1%	73.9%
31	9/23/2004	18	VDVKNKRTFLSPWISNIH	2154.5	99.0%	74.6%
32	9/28/2004	18	FLSPWISNIHEKKGLTKY	2161.5	98.2%	74.8%
33	9/24/2004	17	IHEKKGLTKYKSSPEKW	2059.4	99.0%	68.7%
34	9/24/2004	17	TKYKSSPEKWSTASDPY	1975.1	97.1%	78.5%
35	9/24/2004	16	EKWSTASDPYSDFEKV	1889.0	96.8%	81.6%
36	9/24/2004	18	SDPYSDFEKVTGRIDKNV	2070.2	94.4%	77.5%
37	9/16/2004	18	KVTGRIDKNVSPEARHPL	2017.3	94.3%	72.0%
38	9/28/2004	18	NVSPEARHPLVAAYPIVH	1970.3	99.8%	80.7%
39	10/13/2004	18	PLVAAYPIVHVDMENIIL	2007.4	91.6%	84.3%
40	9/15/2004	18	VHVDMENIILSKNEDQST	2072.3	91.7%	84.0%
41	9/15/2004	18	ILSKNEDQSTQNTDSETR	2066.1	91.3%	80.4%
42	9/21/2004	20	STQNTDSETRTISKNTSTSR	2214.3	99.0%	78.3%
43	9/29/2004	17	TISKNTSTSRHTSEVH	1886.0	98.6%	77.1%
44	9/29/2004	17	TSRHTSEVHGNAEVHA	1832.9	98.0%	72.7%
45	9/24/2004	15	EVHGNAEVHASFFDI	1671.8	90.5%	78.6%
46	10/14/2004	18	AEVHASFFDIGGSVSAGF	1797.9	96.4%	83.2%
47	9/24/2004	18	DIGGSVSAGFSNSNSSTV	1685.7	95.6%	87.3%
48	10/18/2004	18	GFSNSNSSTVAIDHLSL	1835.9	51.6%	85.6%
49	9/29/2004	17	TVAIDHLSLAGERTWA	1827.0	99.0%	76.2%
50	9/29/2004	18	LSLAGERTWAETMGLNTA	1921.2	90.5%	84.5%
51	9/28/2004	17	WAETMGLNTADTARLNA	1835.0	93.3%	84.9%
52	9/27/2004	15	NTADTARLNANIRYV	1691.9	97.6%	79.3%
53	10/6/2004	18	ARLNANIRYVNTGTAPIY	2007.3	90.6%	86.0%
54	10/12/2004	18	YVNTGTAPIYNVLPTTSL	1924.2	94.3%	87.6%
55	9/27/2004	18	IYNVLPTTSLVLGKNQTL	1974.3	99.0%	85.2%
56	9/29/2004	16	SLVLGKNQTLATIKAK	1685.0	99.4%	74.5%
57	9/29/2004	18	NQTLATIKAKENQLSQIL	2013.3	96.5%	77.4%
58	10/11/2004	16	AKENQLSQILAPNNYY	1866.1	99.8%	82.4%
59	9/29/2004	18	SQILAPNNYYPSKNLAPI	2003.3	99.0%	85.3%
60	9/29/2004	18	YPSKNLAPIALNAQDDF	2040.3	>99%	85.1%
61	10/21/2004	17	PIALNAQDDFSSTPITM	1821.0	54.4%	86.0%
62	10/15/2004	18	DDFSSTPITMNYNQFLEL	2135.3	83.3%	88.5%

Table 1 (continued)

Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Purity by HPLC ^a	Peptide Content ^b
63	9/29/2004	18	TMNYNQFLELEKTKQLRL	2269.7	90.7%	79.2%
64	10/12/2004	16	ELEKTKQLRLDTDQVY	1979.2	98.5%	77.2%
65	10/1/2004	17	KQLRLDTDQVYGNATY	1998.2	93.7%	80.1%
66	10/5/2004	18	DQVYGNATYNFENGRVR	2116.3	98.8%	83.0%
67	10/15/2004	17	TYNFENGRVRVDTGSNW	2015.1	98.5%	81.2%
68	10/15/2004	17	RVRVDTGSNWSEVLPQI	1956.2	95.7%	79.7%
69	10/18/2004	18	SNWSEVLPQIQETTARII	2085.3	98.9%	85.6%
70	10/26/2004	17	PQIQETTARIIFNGKDL	1944.2	94.0%	80.2%
71	10/1/2004	18	ARIIFNGKDLNLVERRIA	2098.5	94.1%	72.1%
72	10/1/2004	18	DLNLVERRIAAVNPSDPL	1992.3	98.4%	81.1%
73	10/5/2004	17	IAAVNPSDPLETTKPDML	1799.0	96.2%	82.2%
74	10/1/2004	18	DPLETTKPDMLTKEALKI	2043.4	96.3%	77.3%
75	10/11/2004	18	DMTLKEALKIAFGFNEPN	2038.4	52.3%	83.0%
76	10/4/2004	18	KIAFGFNEPNGNLQYQGK	2025.3	99.3%	81.4%
77	10/19/2004	17	PNGNLQYQGKDITEFDF	1986.1	80.9%	84.2%
78	10/6/2004	18	YQGKDITEFDFNFDDQOTS	2183.3	90.7%	86.2%
79	10/20/2004	18	FDNFDDQOTSQNIKNQLA	2158.3	72.2%	87.3%
80	10/21/2004	18	TSQNIKNQLAELNATNIY	2035.2	68.4%	84.9%
81	10/7/2004	18	LAELNATNIYTVLDKIKL	2032.4	90.8%	80.8%
82	10/8/2004	18	IYTVLDKIKLNAKMNILI	2103.6	92.8%	82.0%
83	10/15/2004	17	KLNAKMNILIRDKRFHY	2160.6	99.0%	68.6%
84	10/11/2004	17	ILIRDKRFHYDRNNAIV	2143.5	99.1%	69.9%
85	10/11/2004	18	FHYDRNNAIVGADES ^v VVK	2034.2	98.9%	73.9%
86	10/8/2004	17	AVGADES ^v VVKEAHREVI	1809.0	96.2%	75.9%
87	10/13/2004	18	VVKEAHREVINSSTEGLL	1981.2	98.6%	72.6%
88	10/13/2004	18	VINSSTEGLLLNIDKDIR	2000.3	98.9%	81.8%
89	10/13/2004	18	LLL ⁿ IDKDIRKILSGYIV	2086.5	99.2%	81.1%
90	10/15/2004	18	IRKILSGYIVEIEDTEGL	2048.4	87.8%	85.9%
91	10/26/2004	18	IVEIEDTEGLKEVINDRY	2135.4	92.9%	81.7%
92	10/19/2004	18	GLKEVINDRYDMLNISSL	2080.4	93.9%	79.2%
93	10/15/2004	18	RYDMLNISSLRQDGKTFI	2157.5	96.4%	79.9%
94	10/15/2004	18	SLRQDGKTFIDFKKYNDK	2203.5	91.7%	78.0%
95	10/13/2004	15	FIDFKKYNDKLPYLI	1917.3	99.2%	75.8%
96	10/15/2004	17	KYNDKLPYLI ⁿ PNYKV	2069.4	98.3%	79.7%
97	10/25/2004	17	LYISNPYKVNVYAVTK	1986.3	98.6%	80.4%
98	10/25/2004	15	YKVNVYAVTKENTII	1755.0	99.3%	83.2%
99	10/11/2004	18	YAVTKENTII ⁿ PSNGDT	1966.1	98.8%	82.2%
100	10/20/2004	18	IINPSNGDTSTNGIKKI	1901.1	99.8%	80.6%
101	10/28/2004	18	DTSTNGIKKILIFSKKGY	2013.4	92.3%	74.1%
102	10/12/2004	13	KILIFSKKGYEIG	1495.8	99.2%	76.7%

^a% full-length

^bRemainder is salt and water

Table 2 - Amino Acid Analysis

Peptide		Ala (A)	Arg (R)	Asx (N,D)	Glx (Q,E)	Gly (G)	His (H)	Ile (I)	Leu (L)	Lys (K)	Met (M)	Phe (F)	Pro (P)	Ser (S)	Thr (T)	Trp (W)	Tyr (Y)	Val (V)
1	Expected	1.00	1.00					2.00	4.00	3.00	2.00		1.00	1.00	1.00			2.00
	Actual	1.00	1.02					2.26	4.20	2.96	2.09		0.99	0.90	0.95			2.04
2	Expected	1.00		1.00	1.00	1.00		1.00	4.00		1.00		1.00	3.00	2.00			2.00
	Actual	1.00		1.01	1.05	1.04		1.02	4.00		0.82		0.97	2.30	1.60			1.97
3	Expected	1.00		1.00	3.00	1.00		1.00	2.00	1.00				2.00	1.00			3.00
	Actual	1.00		0.99	2.87	1.01		0.81 ^a	2.05	0.98				1.50	0.80			2.80 ^a
4	Expected	1.00	1.00	2.00	5.00			1.00	3.00	1.00								2.00
	Actual	1.03	1.07	2.11	5.00			0.80 ^a	3.25	1.07								1.88 ^a
5	Expected	1.00	1.00	2.00	6.00	1.00			3.00	1.00				4.00				1.00
	Actual	0.94	0.96	1.89	5.59	1.00			3.01	0.93				3.03				0.93
6	Expected			2.00	3.00	2.00			3.00			1.00		5.00				2.00
	Actual			2.03	3.00	2.11			3.20			1.04		3.80				1.92
7	Expected	1.00		2.00	1.00	2.00			3.00		1.00	2.00	1.00	1.00				2.00
	Actual	1.00		2.01	1.02	2.00			3.02		0.90	1.98	1.02	0.81				1.85
8	Expected	1.00		3.00	1.00	1.00			2.00		1.00	1.00	1.00	2.00	3.00			2.00
	Actual	0.94		3.04	1.00	1.01			2.03		0.86	1.07	0.95	1.65	2.65			1.75 ^a
9	Expected			1.00	1.00	1.00		1.00	2.00				1.00	5.00	3.00			2.00
	Actual			1.01	1.05	1.00		1.07	2.08				1.02	3.95	2.53			1.56 ^a
10	Expected			3.00	4.00	1.00		2.00	2.00				2.00	4.00				1.00
	Actual			2.86	3.89	1.00		2.24	2.06				1.95	3.51				0.98
11	Expected	1.00		2.00	4.00			2.00	1.00			1.00	1.00	2.00		1.00	1.00	
	Actual	1.07		2.09	4.00			2.09	1.11			1.08	0.98	1.60		0.00 ^b	1.05	
12	Expected	1.00		1.00	3.00	1.00		2.00		3.00		2.00		2.00		1.00	1.00	1.00
	Actual	1.08		0.92	3.00	1.05		1.80		3.01		1.99		1.70		0.00 ^b	1.01	1.07
13	Expected	1.00		1.00	1.00	1.00		2.00		3.00		2.00		2.00	1.00	1.00	1.00	1.00
	Actual	1.01		1.01	1.00	1.03		1.90		2.95		1.97		1.60	0.88	0.00 ^b	0.95	0.99
14	Expected	2.00		3.00	1.00		1.00			2.00		1.00		2.00	2.00	1.00		2.00
	Actual	2.20		3.10	1.00		1.08			2.10		1.12		1.71	1.95	1.02		2.05
15	Expected	2.00		4.00	2.00		1.00				1.00	1.00		1.00	3.00	1.00		3.00
	Actual	2.00		4.08	2.12		1.01				0.96	1.01		0.83	2.45	0.00 ^b		3.09
16	Expected	1.00		5.00	2.00			1.00		2.00	1.00			2.00	1.00	1.00		3.00
	Actual	1.17		5.37	2.00			0.87		2.26	0.99			1.89	0.90	0.00 ^b		2.91
17	Expected	1.00	2.00	3.00	1.00	1.00		2.00	2.00	3.00				2.00				1.00
	Actual	1.00	2.01	2.89	1.00	1.02		1.58 ^a	2.08	2.96				1.50				0.60 ^a
18	Expected		2.00	1.00	3.00	1.00		3.00	2.00	3.00								2.00
	Actual		1.99	0.93	2.81	1.00		3.15	2.01	2.75								2.30
19	Expected		2.00	1.00	5.00	1.00		2.00	1.00	2.00			1.00		1.00			2.00
	Actual		1.93	0.97	4.74	1.00		2.16	1.00	1.86			0.93		0.92			2.18
20	Expected		1.00	2.00	4.00	1.00		1.00	2.00	2.00		1.00	1.00		1.00			2.00
	Actual		1.00	1.96	4.00	1.07		1.09	2.08	2.03		1.00	1.04		0.97			1.93
21	Expected			3.00	2.00	1.00			2.00	4.00		1.00		1.00	2.00	1.00	1.00	
	Actual			2.96	2.00	1.01			2.05	3.90		1.02		0.82	1.67	0.00 ^b	0.99	
22	Expected			4.00	2.00			1.00	2.00	2.00				3.00	1.00	1.00	1.00	1.00
	Actual			3.81	1.70			0.81 ^a	2.00	1.91				2.20	0.90	0.00 ^b	0.94	0.85 ^a
23	Expected			2.00	4.00			1.00	3.00	4.00			1.00	2.00				1.00
	Actual			2.00	4.00			0.93	3.09	3.89			0.99	1.76				0.88
24	Expected		2.00	2.00	3.00				3.00	4.00			1.00	3.00				
	Actual		1.97	1.97	3.00				3.11	3.91			0.93	2.86				
25	Expected	1.00	2.00	1.00	1.00					4.00				5.00	1.00			
	Actual	1.03	2.09	1.02	1.00					4.08				4.00	0.90			
26	Expected	1.00	3.00	2.00		1.00				2.00			2.00	3.00	2.00			1.00
	Actual	1.00	2.98	1.96		1.01				1.98			1.93	2.33	1.75			0.98
27	Expected	1.00	1.00	4.00		2.00		1.00					2.00	1.00	2.00			1.00
	Actual	1.00	1.01	3.91		2.03		0.98					1.96	0.80	1.78			0.99
28	Expected		1.00	5.00	1.00	1.00		1.00	1.00				2.00	1.00	1.00			2.00
	Actual		0.97	4.80	1.00	0.98		0.94	0.99				1.99	0.72	0.83			1.94

Table 2 - Amino Acid Analysis (continued)

Peptide		Ala (A)	Arg (R)	Asx (N,D)	Glx (Q,E)	Gly (G)	His (H)	Ile (I)	Leu (L)	Lys (K)	Met (M)	Phe (F)	Pro (P)	Ser (S)	Thr (T)	Trp (W)	Tyr (Y)	Val (V)
29	Expected			4.00	2.00	2.00		1.00	1.00	1.00			1.00	1.00	1.00		1.00	3.00
	Actual			3.98	2.00	2.06		0.99	1.04	1.01			0.99	0.80	0.90		0.99	3.12
30	Expected		1.00	2.00	2.00	1.00			1.00	2.00		1.00			2.00		1.00	3.00
	Actual		0.97	1.96	1.83	0.99			1.00	1.93		0.97			1.77		0.94	2.92
31	Expected		1.00	3.00			1.00	2.00	1.00	2.00		1.00	1.00	2.00	1.00	1.00		2.00
	Actual		0.93	2.88			0.92	1.86	1.00	1.93		0.95	0.91	1.50	0.87	0.00 ^p		1.94
32	Expected			1.00	1.00	1.00	1.00	2.00	2.00	3.00		1.00	1.00	2.00	1.00	1.00	1.00	
	Actual			1.00	1.00	1.01	0.87	1.78	2.00	2.95		0.98	1.00	1.55	0.88	0.00 ^p	0.92	
33	Expected				2.00	1.00	1.00	1.00	1.00	5.00			1.00	2.00	1.00	1.00	1.00	
	Actual				2.00	1.05	1.01	0.94	1.04	5.17			1.03	1.66	0.93	0.00 ^p	1.05	
34	Expected	1.00		1.00	1.00					3.00			2.00	4.00	2.00	1.00	2.00	
	Actual	1.00		1.04	1.04					2.95			2.02	2.81	1.74	0.00 ^p	1.85	
35	Expected	1.00		2.00	2.00					2.00		1.00	1.00	3.00		1.00	1.00	1.00
	Actual	1.00		2.03	1.97					1.99		1.02	1.00	2.50		0.00 ^p	0.94	1.03
36	Expected		1.00	4.00	1.00	1.00		1.00		2.00		1.00	1.00	2.00	1.00		1.00	2.00
	Actual		0.99	3.83	1.02	1.00		0.97		1.98		1.00	1.01	1.51	0.88		0.95	2.02
37	Expected	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00			2.00	1.00	1.00			2.00
	Actual	1.01	2.13	1.95	0.99	1.00	1.09	1.13	1.07	1.94			1.75	0.94	0.96			2.00
38	Expected	3.00	1.00	1.00	1.00		2.00	1.00	1.00				3.00	1.00			1.00	3.00
	Actual	3.00	1.02	1.01	1.05		2.02	0.80 ^a	1.02				3.09	0.80			1.00	2.86 ^a
39	Expected	2.00		2.00	1.00		1.00	3.00	2.00		1.00		2.00				1.00	3.00
	Actual	1.97		2.01	1.00		1.00	1.93 ^a	2.06		0.93		2.09				0.94	2.69 ^a
40	Expected			4.00	3.00		1.00	2.00	1.00	1.00	1.00			2.00	1.00			2.00
	Actual			3.96	3.00		0.89	1.41 ^a	1.07	0.98	1.17			1.83	0.97			1.90
41	Expected		1.00	4.00	4.00			1.00	1.00	1.00				3.00	3.00			
	Actual		0.98	4.04	4.00			1.18	1.08	1.04				2.70	2.87			
42	Expected		2.00	3.00	2.00			1.00		1.00				5.00	6.00			
	Actual		2.16	3.19	2.00			1.09		1.09				4.22	5.56			
43	Expected		1.00	1.00	1.00		2.00	1.00		1.00				4.00	5.00			1.00
	Actual		0.85	0.99	1.00		1.99	0.97		0.99				3.06	4.29			0.95
44	Expected	2.00	1.00	1.00	2.00	1.00	3.00							2.00	3.00			2.00
	Actual	2.03	1.02	1.04	2.00	1.06	2.98							1.66	2.74			2.01
45	Expected	2.00		2.00	2.00	1.00	2.00	1.00				2.00		1.00				2.00
	Actual	2.08		1.99	2.00	1.04	2.06	1.03				2.03		0.85				2.00
46	Expected	3.00		1.00	1.00	3.00	1.00	1.00				3.00		3.00				2.00
	Actual	3.10		1.05	1.00	3.15	0.99	1.02				3.04		2.35				2.05
47	Expected	1.00		3.00		3.00		1.00				1.00		6.00	1.00			2.00
	Actual	1.02		2.93		3.00		0.98				0.99		4.45	0.83			1.98
48	Expected	1.00		3.00		1.00	1.00	1.00	2.00			1.00		6.00	1.00			1.00
	Actual	0.01		2.57		0.85	0.97	0.92	1.95			0.87		4.90	0.75			0.97
49	Expected	3.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00					2.00	2.00	1.00		1.00
	Actual	3.00	0.97	1.01	0.99	1.12	1.02	0.96	2.03					1.77	1.76	0.00 ^p		0.99
50	Expected	3.00	1.00	1.00	2.00	2.00			3.00		1.00			1.00	3.00	1.00		
	Actual	3.00	0.93	1.01	1.90	2.06			3.04		0.97			0.83	2.60	0.00 ^p		
51	Expected	4.00	1.00	3.00	1.00	1.00			2.00		1.00				3.00	1.00		
	Actual	4.06	0.95	3.01	1.00	1.03			2.06		0.99				2.79	0.00 ^p		
52	Expected	3.00	2.00	4.00				1.00	1.00						2.00		1.00	1.00
	Actual	3.00	2.01	3.95				0.97	1.02						1.84		0.99	1.02
53	Expected	3.00	2.00	3.00		1.00		2.00	1.00				1.00		2.00		2.00	1.00
	Actual	3.00	1.95	3.03		1.02		1.95	1.00				0.95		1.91		1.95	0.99
54	Expected	1.00		2.00		1.00		1.00	2.00				2.00	1.00	4.00		2.00	2.00
	Actual	1.02		1.97		1.00		0.96	2.04				1.92	0.86	3.66		1.92	1.99
55	Expected			2.00	1.00	1.00		1.00	4.00	1.00			1.00	1.00	3.00		1.00	2.00
	Actual			1.96	1.00	1.04		0.96	4.01	0.98			1.02	0.81	2.61		0.94	2.00
56	Expected	2.00		1.00	1.00	1.00		1.00	3.00	3.00				1.00	2.00			1.00
	Actual	2.03		1.02	1.00	1.04		0.96	3.11	3.00				0.92	1.81			1.02
57	Expected	2.00		2.00	4.00			2.00	3.00	2.00				1.00	2.00			
	Actual	2.06		2.05	4.00			2.10	3.23	2.06				0.83	1.77			

Table 2 - Amino Acid Analysis (continued)

Peptide		Ala (A)	Arg (R)	Asx (N,D)	Glx (Q,E)	Gly (G)	His (H)	Ile (I)	Leu (L)	Lys (K)	Met (M)	Phe (F)	Pro (P)	Ser (S)	Thr (T)	Trp (W)	Tyr (Y)	Val (V)
58	Expected	2.00		3.00	3.00			1.00	2.00	1.00			1.00	1.00			2.00	
	Actual	1.97		3.00	2.92			0.98	2.00	1.00			0.86	0.79			1.91	
59	Expected	2.00		3.00	1.00			2.00	2.00	1.00			3.00	2.00			2.00	
	Actual	2.00		2.99	1.06			1.98	2.04	1.01			3.10	1.54			1.98	
60	Expected	3.00		4.00	1.00			1.00	2.00	1.00		1.00	2.00	1.00			2.00	
	Actual	3.00		3.97	1.06			0.98	2.08	1.02		1.02	2.10	0.76			1.99	
61	Expected	2.00		3.00	1.00			2.00	1.00		1.00	1.00	2.00	2.00	2.00			
	Actual	2.00		3.06	1.15			1.97	1.11		0.70	0.95	2.00	1.61	1.78			
62	Expected			4.00	2.00			1.00	2.00		1.00	2.00	1.00	2.00	2.00		1.00	
	Actual			3.97	2.00			1.00	2.11		0.97	2.05	1.01	1.51	1.78		1.00	
63	Expected		1.00	2.00	4.00				4.00	2.00	1.00	1.00			2.00		1.00	
	Actual		1.05	2.07	4.00				4.32	2.12	1.04	1.06			1.99		1.02	
64	Expected		1.00	2.00	4.00				3.00	2.00					2.00		1.00	1.00
	Actual		1.04	2.11	4.00				3.18	2.07					1.96		1.04	1.06
65	Expected	1.00	1.00	3.00	2.00	1.00		1.00	2.00	1.00					2.00		2.00	1.00
	Actual	1.00	1.05	3.10	1.99	1.00		1.05	2.09	1.07					1.75		2.12	0.99
66	Expected	1.00	2.00	4.00	2.00	2.00		1.00				1.00			1.00		2.00	2.00
	Actual	1.16	2.08	4.10	2.00	2.20		1.06				1.03			1.03		1.96	2.07
67	Expected		2.00	4.00	1.00	2.00						1.00		1.00	2.00	1.00	1.00	2.00
	Actual		2.03	3.56	1.00	2.09						1.02		0.86	1.79	0.00 ^p	0.90	2.01
68	Expected		2.00	2.00	2.00	1.00		1.00	1.00				1.00	2.00	1.00	1.00		3.00
	Actual		1.90	1.50	2.00	1.02		1.00	1.02				1.00	1.60	0.90	0.00 ^p		2.91
69	Expected	1.00	1.00	1.00	4.00			3.00	1.00				1.00	2.00	2.00	1.00		1.00
	Actual	1.03	1.02	0.80	4.00			2.65 ^a	1.05				0.95	1.64	1.77	0.00 ^p		1.03
70	Expected	1.00	1.00	2.00	3.00	1.00		3.00	1.00	1.00		1.00	1.00		2.00			
	Actual	1.00	1.00	2.04	2.88	1.02		2.51 ^a	1.03	1.02		1.01	1.17		1.87			
71	Expected	2.00	3.00	3.00	1.00	1.00		3.00	2.00	1.00		1.00						1.00
	Actual	2.00	3.00	3.04	0.99	1.08		2.52 ^a	2.13	1.02		0.98						1.02
72	Expected	2.00	2.00	4.00	1.00			1.00	3.00				2.00	1.00				2.00
	Actual	2.00	2.04	3.99	1.04			0.99	3.08				2.08	0.77				2.05
73	Expected	2.00		3.00	1.00			1.00	1.00	1.00	1.00		3.00	1.00	2.00			1.00
	Actual	2.00		3.03	1.09			1.00	1.06	1.03	0.93		3.19	0.79	1.81			1.01
74	Expected	1.00		2.00	2.00			1.00	3.00	3.00	1.00		2.00		3.00			
	Actual	1.00		2.00	1.99			1.00	3.09	3.00	0.99		2.07		2.74			
75	Expected	2.00		3.00	2.00	1.00		1.00	2.00	2.00	1.00	2.00	1.00		1.00			
	Actual	2.00		2.70	1.68	1.03		0.98	2.00	1.91	0.72	1.97	0.60		0.90			
76	Expected	1.00		3.00	3.00	3.00		1.00	1.00	2.00		2.00	1.00				1.00	
	Actual	1.03		3.01	2.86	3.00		1.11	1.06	1.96		2.05	0.99				0.97	
77	Expected			4.00	3.00	2.00		1.00	1.00	1.00		2.00	1.00		1.00		1.00	
	Actual			4.04	3.00	1.99		0.99	1.07	1.04		2.08	1.07		0.94		0.99	
78	Expected			4.00	4.00	1.00		1.00		1.00		3.00		1.00	2.00		1.00	
	Actual			4.00	3.38	1.14		1.01		0.88		2.65		0.80	1.76		0.80	
79	Expected	1.00		5.00	4.00			1.00	1.00	1.00		3.00		1.00	1.00			
	Actual	1.00		4.94	3.51			1.09	1.20	0.85		2.92		1.00	1.00			
80	Expected	2.00		4.00	3.00			2.00	2.00	1.00				1.00	2.00		1.00	
	Actual	2.00		3.83	2.70			1.88	2.00	0.93				0.90	1.72		0.81	
81	Expected	2.00		3.00	1.00			2.00	4.00	2.00					2.00		1.00	1.00
	Actual	2.00		3.07	0.98			2.02	4.17	2.06					1.84		1.04	1.05
82	Expected	1.00		3.00				4.00	3.00	3.00	1.00				1.00		1.00	1.00
	Actual	1.00		3.04				3.83	3.10	2.89	0.87				0.99		0.89	1.00
83	Expected	1.00	2.00	3.00			1.00	2.00	2.00	3.00	1.00	1.00					1.00	
	Actual	1.00	2.05	3.07			1.01	1.95	2.06	3.06	1.00	1.01					0.98	
84	Expected	1.00	3.00	4.00			1.00	3.00	1.00	1.00		1.00					1.00	1.00
	Actual	0.97	3.00	3.95			1.01	2.92	1.00	0.99		0.98					0.96	1.00
85	Expected	2.00	1.00	4.00	1.00	1.00	1.00	1.00		1.00		1.00		1.00			1.00	3.00
	Actual	2.00	0.95	3.93	0.97	1.00	0.99	1.06		0.99		1.01		0.80			0.96	2.67 ^a
86	Expected	3.00	1.00	1.00	3.00	1.00	1.00	1.00		1.00				1.00				4.00
	Actual	3.00	0.99	1.04	2.87	1.12	1.05	0.95		1.00				1.06				3.57 ^a

Table 2 - Amino Acid Analysis (continued)

Peptide		Ala (A)	Arg (R)	Asx (N,D)	Glx (Q,E)	Gly (G)	His (H)	Ile (I)	Leu (L)	Lys (K)	Met (M)	Phe (F)	Pro (P)	Ser (S)	Thr (T)	Trp (W)	Tyr (Y)	Val (V)
87	Expected	1.00	1.00	1.00	3.00	1.00	1.00	1.00	2.00	1.00				2.00	1.00			3.00
	Actual	1.00	0.98	1.03	2.90	1.04	1.01	0.77 ^a	2.08	0.99				1.50	0.88			2.17 ^a
88	Expected		1.00	4.00	1.00	1.00		3.00	3.00	1.00				2.00	1.00			1.00
	Actual		0.96	3.97	1.00	1.02		2.58 ^a	3.11	0.99				1.50	0.96			0.69 ^a
89	Expected		1.00	3.00		1.00		4.00	4.00	2.00				1.00			1.00	1.00
	Actual		0.96	2.93		1.00		3.71 ^a	4.04	1.93				0.73			0.92	0.86 ^a
90	Expected		1.00	1.00	3.00	2.00		4.00	2.00	1.00				1.00	1.00			1.00
	Actual		0.98	1.11	3.03	2.00		3.74 ^a	2.15	1.06				0.84	0.91		0.94	0.86 ^a
91	Expected		1.00	3.00	4.00	1.00		3.00	1.00	1.00					1.00		1.00	2.00
	Actual		1.00	2.96	3.75	1.00		2.33 ^a	1.05	0.99					0.91		1.01	1.33 ^a
92	Expected		1.00	4.00	1.00	1.00		2.00	3.00	1.00	1.00			2.00			1.00	1.00
	Actual		0.98	4.09	1.00	0.97		1.83 ^a	3.12	0.97	0.85			1.55			0.84	0.79 ^a
93	Expected		2.00	3.00	1.00	1.00		2.00	2.00	1.00	1.00	1.00		2.00	1.00			1.00
	Actual		2.04	3.03	1.00	1.01		2.12	2.16	1.07	0.92	1.04		1.61	0.93		0.98	
94	Expected		1.00	4.00	1.00	1.00		1.00	1.00	4.00		2.00		1.00	1.00			1.00
	Actual		0.92	3.86	0.80	1.00		0.95	0.95	3.95		1.97		0.75	0.91			0.98
95	Expected			3.00				2.00	2.00	3.00		2.00	1.00					2.00
	Actual			2.90				1.87	2.00	2.89		1.87	0.93					1.87
96	Expected			4.00				1.00	2.00	3.00				2.00	1.00			3.00
	Actual			3.80				0.98	2.00	2.89				1.87	0.72			2.82
97	Expected	1.00		3.00				1.00	1.00	2.00				1.00	1.00	1.00		3.00
	Actual	1.00		2.99				1.00	1.02	2.01				1.05	0.81	0.90		2.43
98	Expected	1.00		2.00	1.00			2.00		2.00						2.00		2.00
	Actual	1.00		2.04	1.07			1.94		1.98						1.96		1.99
99	Expected	1.00		4.00	2.00	1.00		2.00		1.00				1.00	1.00	3.00		1.00
	Actual	0.84		4.02	2.01	1.00		1.81 ^a		1.00				1.01	0.88	2.64		0.75
100	Expected			4.00	1.00	2.00		4.00		2.00				1.00	2.00	2.00		
	Actual			3.90	1.00	1.99		3.09 ^a		1.97				1.02	1.51	1.78		
101	Expected			2.00		2.00		3.00	1.00	4.00		1.00			2.00	2.00		1.00
	Actual			1.98		2.20		2.83	1.00	3.91		0.99			1.60	1.76		1.04
102	Expected				1.00	2.00		3.00	1.00	3.00		1.00		1.00				1.00
	Actual				0.95	2.00		2.91	1.01	2.92		0.97		0.82				0.96

^aVal-Ile, Val-Val, Ile-Val and/or Ile-Ile bonds were only partially destroyed during hydrolysis

^bTrp was completely destroyed during hydrolysis

Date: 12 JUL 2007

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